

## CLAIMS

- 1/ A wheel assembly comprising:
- a wheel having a rim adapted to receive a tire, the wheel carrying a sensor for measuring pressure inside the tire;
  - a spindle around which the wheel is mounted to rotate; and
  - communication means between the sensor and means associated with the spindle for making use of measurements performed by the sensor;
- wherein said communication means comprise radio transmission means including a rotary antenna carried by the wheel and a fixed antenna carried by the spindle.
- 2/ A wheel assembly according to claim 1, wherein the spindle has a free end, and wherein the fixed antenna and the rotary antenna are disposed in the vicinity of the free end of the spindle.
- 3/ A wheel assembly according to claim 2, wherein the rotary antenna and the fixed antenna are placed facing each other in succession in line with the spindle.
- 4/ A wheel assembly according to claim 3, wherein the rim includes a hub with a through passage in which the spindle is engaged, and the assembly further including a cap closing said passage in line with the free end of the spindle, the rotary antenna being carried by the cap on its face looking towards the spindle, the cap, the spindle, and the hub defining an essentially closed space within which the rotary antenna and the fixed antenna are confined.
- 5/ A wheel assembly according to claim 1, wherein the rotary antenna and the fixed antenna are generally circularly symmetrical, and wherein they are disposed

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substantially coaxially about the axis of rotation of the wheel.

5 6/ A wheel assembly according to claim 1, wherein each of the rotary antenna and the fixed antenna comprises a set of metal turns carried by a support, which turns form the transmission and/or reception elements of the antenna.

10 7/ A wheel assembly according to claim 4, wherein each of the rotary antenna and the fixed antenna comprises a set of metal turns carried by a support, which turns form the transmission and/or reception elements of the antenna, and said set of metal turns of the rotary antenna is carried directly by the cap forming a support.

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